

IN THE CLAIMS

Please cancel claim 9 without prejudice or disclaimer of its underlying subject matter.

Please amend the claims as follows.

1. (canceled).

Sub D 17
2. (currently amended, includes the features of claim 9) An apparatus for electroplating and thereby forming a metal film by way of an electroplating method, said apparatus comprising:

C 1
a plating bath provided in a plating chamber;
a pre-treating chamber, in which a pre-treatment of an article to be plated is conducted, and
a transportation chamber connected to said pre-treating chamber and said plating chamber,

wherein:

said pre-treating chamber, said transportation chamber, and said electroplating chamber are combined to be maintained together in a non-oxidative atmosphere,

said metal film is a copper film,

said plating chamber includes means for embedding said copper film in a groove or in a connecting hole of an article to be plated in said plating bath, and

voids formed in said copper film include an inert gas

Sub D1) forming a non-oxidative layer, and such that said copper film may
be heat treated without oxidation of said film.

3. (canceled).

Sub D1) 4. (currently amended) An apparatus for electroplating as
claimed in claim 2, wherein:

said non-oxidative atmosphere is selected from the group
consisting of a rare gas atmosphere, a nitrogen gas atmosphere
and a hydrogen gas atmosphere.

5-7. (canceled).

C1 Sub D1) 8. (currently amended) An apparatus for electroplating as
claimed in claim 2, wherein:

said plating chamber includes a gas supply port for
supplying said non-oxidative gas to said plating chamber and a
gas evacuation port for evacuating gas contained in the plating
chamber.

9. (canceled).

10. (canceled).

Sub D1) 11. (currently added) An apparatus for electroplating as

claimed in claim 2, wherein:

Sub D1
each of said pre-treating chamber, said transportation chamber, and said electroplating chamber individually includes with an inert gas supply and a gas exhaust.

Please add the following new claim.

Sub D1
12. (new) An apparatus for electroplating and thereby forming a metal film by way of an electroplating method, said apparatus comprising:

C1
a plating bath provided within a plating chamber, said plating bath containing a plating solution for forming a plating on an article to be plated,

wherein said plating bath is maintained in a non-oxidative atmosphere, said plating containing a void having said non-oxidative atmosphere therein.